

IN THE CLAIMS

1. (Currently Amended) A substrate to mount a die having at least one input signal terminal, the substrate keeping an impedance variation between an input signal entering the substrate from a receiving substrate and an output signal provided to the at least one input terminal below a predetermined value, the substrate comprising:

a dielectric core member having an example thickness of 800 microns;

a first plurality of dielectric lamination layers on a first side of the dielectric core member, each having an example thickness of 30 microns, and wherein the dielectric core member comprises material of different dielectric permittivity in comparison to a permittivity of material of the dielectric lamination layers;

a second plurality of conductive layers on the first side of the dielectric core member, each having an example thickness of 25 microns, and including at least one connector ~~a plurality of ball grid array (BGA) connectors~~ on a first surface of an uppermost one of the second plurality of conductive layers to couple to the at least one input signal terminal ~~corresponding terminals of~~ the die; and

a single conductive layer on a second side of the dielectric core member, having an example thickness of 17 microns, wherein the single conductive layer comprises at least one land ~~plurality of lands; and~~ to couple to the input signal from the receiving substrate.

2-7. (Canceled)

8. (Currently Amended) A system comprising:
- a die having a plurality of terminals, including at least one input signal terminal;
 - a receiving substrate having a plurality of terminals, including at least one terminal to provide an input signal;
 - a layered substrate including
 - a dielectric core member;
 - a first plurality of dielectric lamination layers on a first side of the dielectric core member, wherein the dielectric core member comprises material of different dielectric permittivity in comparison to a permittivity of material of the first plurality of the dielectric lamination layers;
 - a second plurality of conductive layers on the first side of the dielectric core member, including at least one connector on a first surface of an uppermost one of the second plurality of conductive layers, the connector being coupled to the at least one input signal terminal of the die; and
 - a single conductive layer on a second side of the dielectric core member, wherein the single conductive layer comprises at least one land coupled to the input signal from the receiving substrate.
- 9-25. (Canceled)
26. (Previously Presented) The substrate as claimed in claim 1, wherein the receiving substrate comprises one of an interposer or a motherboard.
27. (Previously Presented) The system as claimed in claim 8, wherein the receiving substrate comprises one of an interposer or a motherboard.
28. (Previously Presented) The substrate as claimed in claim 1, wherein the predetermined value is within the range of ± 10 ohms.

29. (Previously Presented) The system as claimed in claim 8, wherein the predetermined value is within the range of ± 10 ohms.

30. (Previously Presented) The system as claimed in claim 8, wherein the dielectric core member has an example thickness of 800 microns, wherein each of the first plurality of dielectric lamination layers has an example thickness of 30 microns, wherein each of the second plurality of conductive layers has an example thickness of 25 microns, and wherein the single conductive layer has an example thickness of 17 microns.

31. (Currently Amended) A substrate to mount a die having at least one input signal terminal, the substrate keeping an impedance variation between an input signal entering the substrate from a receiving substrate and an output signal provided to the at least one input terminal below a predetermined value, the substrate comprising:

- a dielectric core member;

- a first plurality of dielectric lamination layers on a first side of the dielectric core member, wherein the dielectric core member comprises material of different dielectric permittivity in comparison to a permittivity of material of the first plurality of the dielectric lamination layers;

- a second plurality of conductive layers on the first side of the dielectric core member, including at least one connector on a first surface of an uppermost one of the second plurality of conductive layers to couple to the at least one input signal terminal of the die; and

- a single conductive layer on a second side of the dielectric core member, wherein the single conductive layer comprises at least one land to couple to the input signal from the receiving substrate.

32. (Previously Presented) The substrate as claimed in claim 31, wherein the receiving substrate comprises one of an interposer or a motherboard.

33. (Previously Presented) The substrate as claimed in claim 32, wherein the predetermined value is within the range of ± 10 ohms.

34. (Previously Presented) The substrate as claimed in claim 33, wherein the dielectric core member has an example thickness of 800 microns, wherein each of the first plurality of dielectric lamination layers has an example thickness of 30 microns, wherein each of the second plurality of conductive layers has an example thickness of 25 microns, and wherein the single conductive layer has an example thickness of 17 microns.